

a host of other experiments equally interesting and instructive.

Too much praise cannot be awarded to Mr. Armstrong for his indefatigable perseverance in bringing it to perfection; nor to the directors, for their public-spiritedness in placing before the public a machine at once so interesting and so truly scientific.

The following description will enable our readers to comprehend the form and make of the machine, but the results produced by it must indeed be seen, to be appreciated.

The Boiler.

A. The boiler, made of rolled iron plate, 1/4th of an inch thick. B. The fire door.
C. The ash pit. D. The water gauge.
E. The feed valve to attach a force-pump.
F. Tubes which convey the steam to the cross tubes G G, into which are inserted 46 curved condensing pipes, H H, at the extremities of which are the jets, from which the steam issues into the atmosphere. The jets

consist of brass sockets, containing short tubes of partridge wood, in which the steam, with the water forced out of the condensing pipes, is subjected to intensely violent friction.

I. Boxes under which the side valves are concealed, and which are opened and shut by the handles projecting from the round surfaces K K.

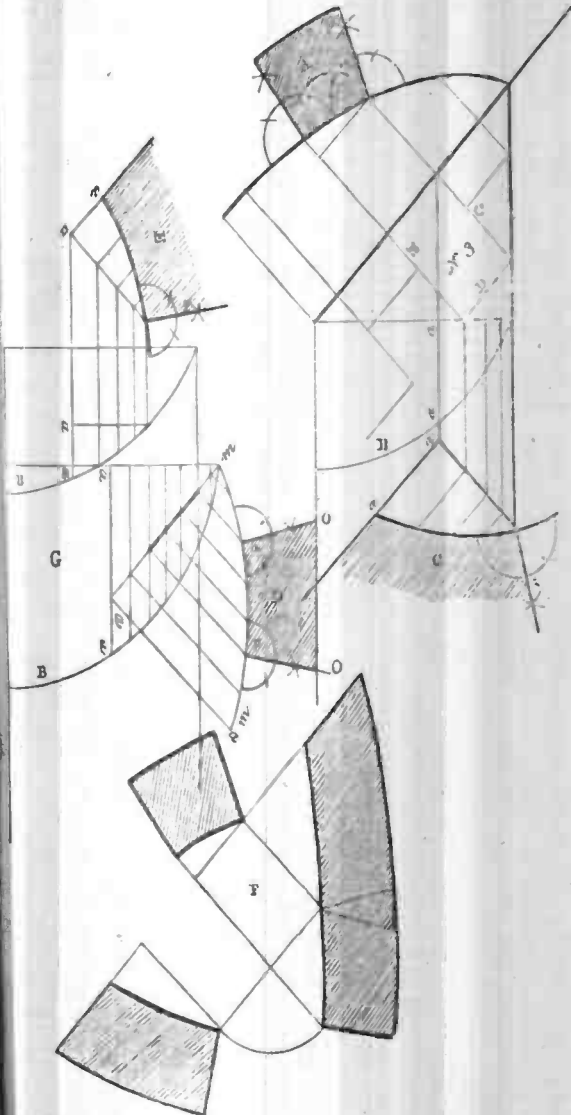
L. The safety valve, the steam from which blows up the chimney, P, which is furnished with a sliding funnel, so that when the machine is put in operation, the funnel may be raised, by which means the boiler, standing on the glass legs Q, is completely insulated.

M. The indicating valve.

N. Jet for the ball experiment.

We are glad to hear the institution is flourishing, and feel assured that the diffusion of scientific information, in the popular way in which it is now done, cannot fail to keep this establishment in the high position it has attained.

RIM OF A SKEW ARCH, COURSES WROUGHT AT RIGHT ANGLES FROM THE FACE OF ARCH.



Stm.—As I assume that the rim of a skew arch is a plane cutting a cylinder in an oblique direction at any given angle, the moulds for

working the stones must be sections of that cylinder as far as the lines for such stones go. Arches constructed with the beds or courses

running diagonally, strengthen, I believe, the acute angle of the rim, and do away in a great measure with the weak corners consequent on working them with the beds or courses parallel to the springing line. I have never seen any work treating on skew arches, nor ever had any thing to do with one, but I have confidence in the plan I have laid down being easy to understand, and correct in principle; as such I submit it to your notice.

I am, Sir, yours truly,

W. LINDLEY.

P.S.—I am glad to see that one worker in stone has been dragged from his hole; I hope more of them will be brought out. I have known masons now for twenty years, and, with one or two exceptions, have never known any thing of them in the way of improving themselves or others more than so many bats in winter, huddled together in the roof of a barn.

A. Elevation, being a section of the cylinder produced by ordinates from its right section or base.

Mould C, for line C, on No. 3 stone of rim D and E correspond in the same manner a, a, corresponding ordinates, and so on with the whole of the ordinates throughout the work.

m m, the soffit produced past the springing line and farther than the points n n of mould D, for the purpose of producing the joint lines O O. The lines for back joints of moulds E and C must be produced in the same way.

F is the stone No. 3 transferred to show the rise of the mould at the four angles, and give the twist of the soffit.

G is the cylinder transferred to prevent the lines being intermixed and confused in producing F and D, a proper application of the moulds, which I conceive will be easy to accomplish, will give the twist of bed and soffit; the soffit may then be wrought by a template made from section, applying it at right angles to the springing line and the beds by a similar method to that by which the soffit of a winding step is wrought.

The stones are drawn to a much larger scale than would be necessary in working them, for the purpose of making the method more plain.

Correspondence.

BRITISH MUSEUM.

Sm.—Notwithstanding the attempt to raise opposition and obstacles to get up, if possible, a competition, the British Museum, I am happy to say, is going on summingly. The row of houses which is to form one wing is far advanced, and, in fact, the whole is now so shaped out, that to suggest any change of plan would be futile. If not particularly imposing, the effect will, I have no doubt, be near enough; or if you like, chaste, and quite as much as the occasion requires. For, who, after all, are the people who either visit or care three straws about the British Museum? No other than the holiday public—the *Os Hellenes*, washed and unwashed—who flock to gaze at "them there grim old Egyptian bodies, and the Elgin marbles." That the more aristocratic classes of the public, and the patrons of art and leaders in art, are altogether indifferent as to what the British Museum turns out as a piece of architecture, is evident enough. Therefore, so let it be, and let us hope that as they are silent now, silent they will remain, and not set up a babel of blustering lamentation should they think fit to be dissatisfied with what Smirke will have given them. Let us, at all events, be decently philosophic, and make up our minds to admire Smirke. Some people of course do admire now, and why cannot all follow their example? Artists are apt greatly to overrate the importance of what is mere matter of taste, and to attribute to it influences existing merely in their own imaginations, just as those learned Thebans, the Camdenians, would have us believe that their church-building regulations are part and parcel of Christianity, and that the church itself is in danger—not because the Bench of Bishops have discarded their orthodox episcopal wigs, but because strict architectural precedent, *alias* copying, is not sufficiently attended to, and old superstitions conceits duly kept up.

As to the British Museum, I don't suppose it will prove a paragon of beauty, but even should it turn out to be one of unmitigated ugliness, we may still very well endure it, just as we have all along endured that of old Montague House. So let us be philosophical, Mr. Editor, for as my grandmother used to remark, "philosophy is a very fine thing, and it costs nothing."

I remain, Ac.

P. COCHRANE.

Temple, October 23.

Notwithstanding what we have said in the